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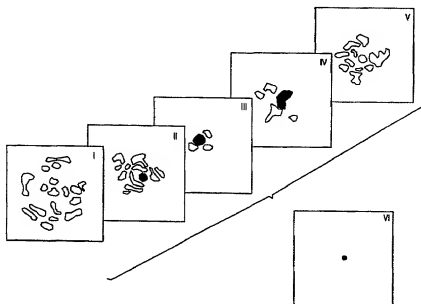
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(54) Title: COMPUTERIZED ADAPTIVE IMAGING



## (57) Abstract

Apparatus for computational adaptive imaging comprises the following: an image information acquirer, which provides information relating to the refractive characteristics in a three-dimensional imaged volume; a ray tracer, which uses the information relating to the refractive characteristics to trace a multiplicity of rays from a multiplicity of locations in the three-dimensional imaged volume through the three-dimensional imaged volume, thereby providing a location dependent point spread function, and a deconvolver, which uses the location dependent point spread function, to provide an output image corrected for distortions due to variations in the refractive characteristics in the three-dimensional imaged volume.